LC7100 Smart PC

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Manual Version 1.0
Part Number:

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical Power Supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

CE MARK

CE This device complies with the requirements of the EEC directive 2004/108/EC with regard to “Electromagnetic compatibility” and 2006/95/EC “Low Voltage Directive”

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Battery Caution

Risk of explosion if battery is replaced by an incorrectly type.
Dispose of used battery according to the local disposal instructions.

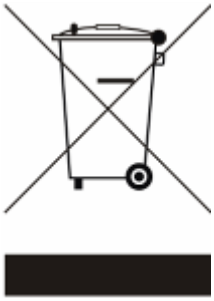
Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 "Materials for fire enclosure" compliant.

4.7.3.2 Materials for fire enclosures
For MOVABLE EQUIPMENT having a total mass not exceeding 18kg.the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.
For MOVABLE EQUIPMENT having a total mass exceeding 18kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life.

Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

Revision History

Changes to the original user manual are listed below:

Revision	Date	Description
V1.0	Jul, 2012	● Release (LC710x)

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1 Item Checklist

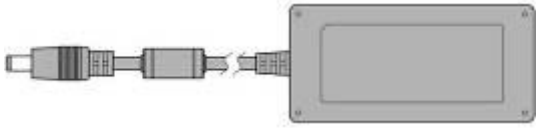
Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

1-1 Standard Items

a.

b.

c.



d.

e.

a. System
b. Driver CD
c. Power Adapter (65W)
d. Power Cable
e. COM-RJ45 Cable (x2)

2 System View

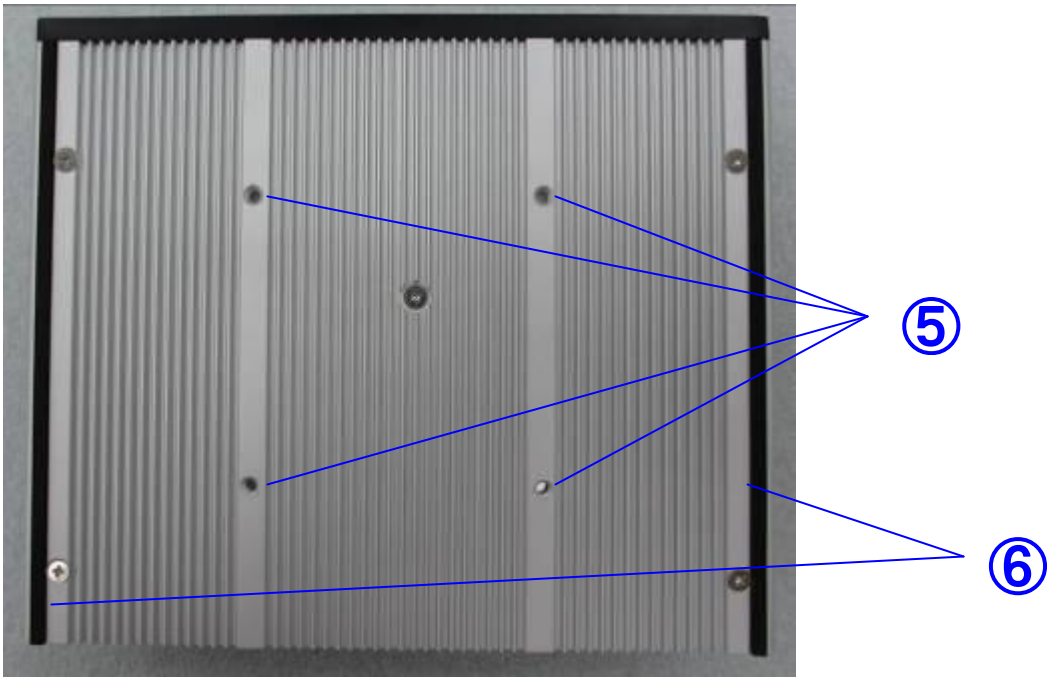
2-1 Front View

Number	Description
1	FRONT PLATE
2	CHASSIS COVER （Optional）
3	CHASSIS

2-2 Rear View

Number	Description
4	I/O PLATE

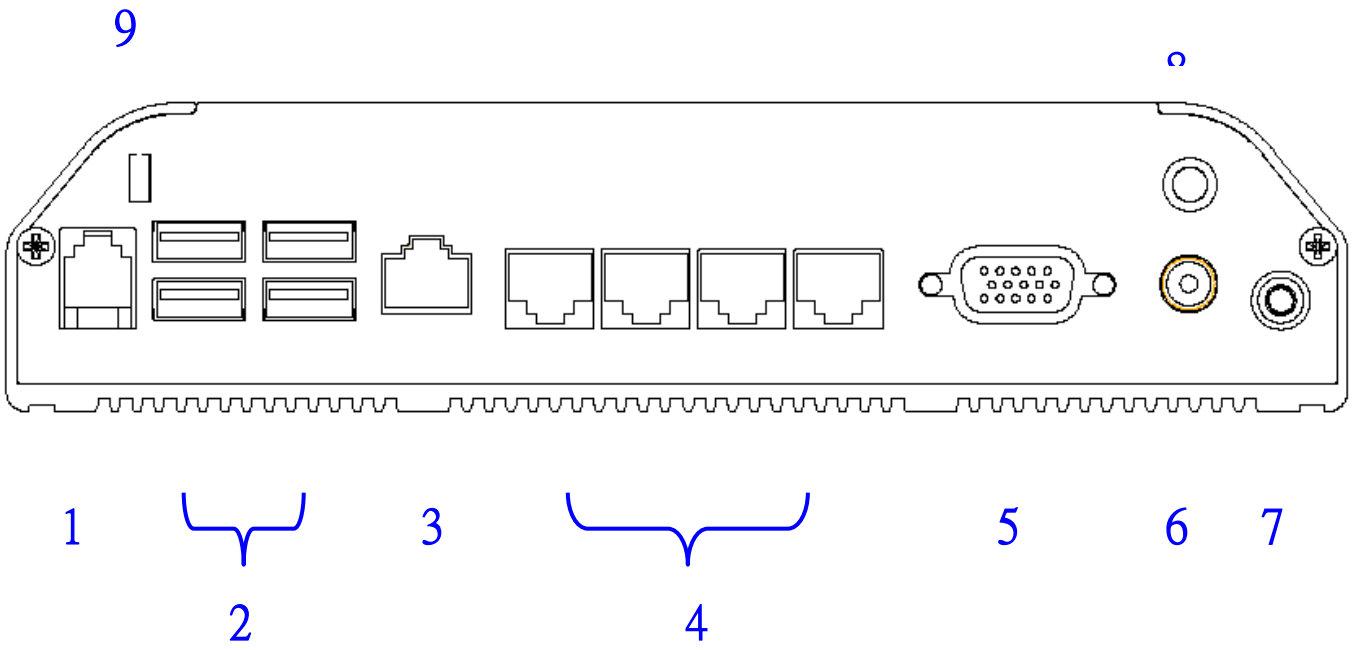
2-3 Bottom View



Number	Description
5	Wall Mount Kit Installing Place
6	Stand Pad

2-4 I/O View

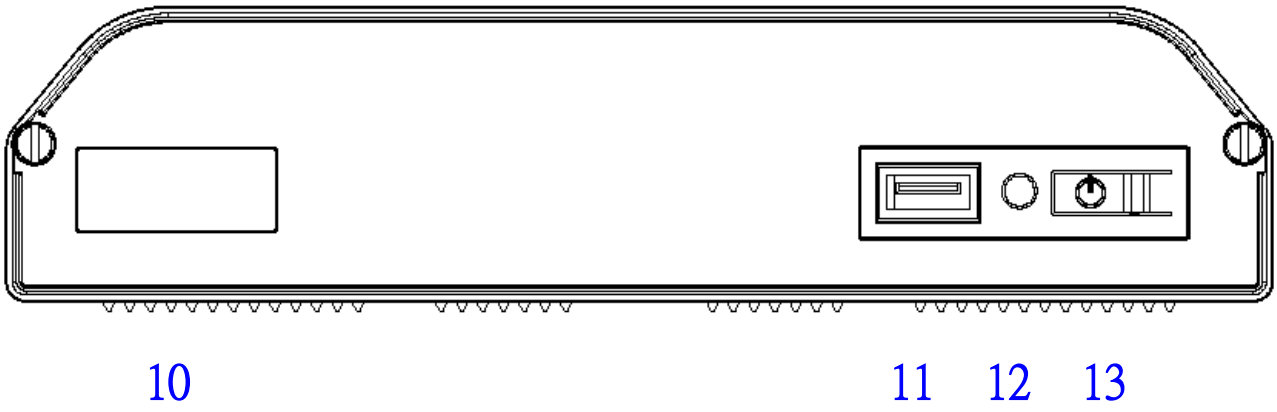
Rear View



Number	Description
1	Cash Drawer
2	USB x 4
3	LAN
4	COM1~4 (from left to right)
5	VGA
6	Power Jack for System
7	Power Button
8	Power LED
9	Kensington Lock

Note: The maximum current that can be drawn from each COM port is 500 mA.

Front View



Number	Description
10	Model Label
11	USB
12	Power LED
13	Power Button

3 Peripheral Installation

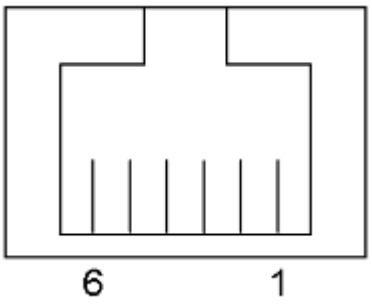
The peripheral and modules units provided are tested and can be supplied at your request.

3-1 Cash Drawer

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

Check topic 6 "Jumper settings" to find out how to set the motherboard to work with 12 or 24V cash drawers.

Cash Drawer Pin Assignment



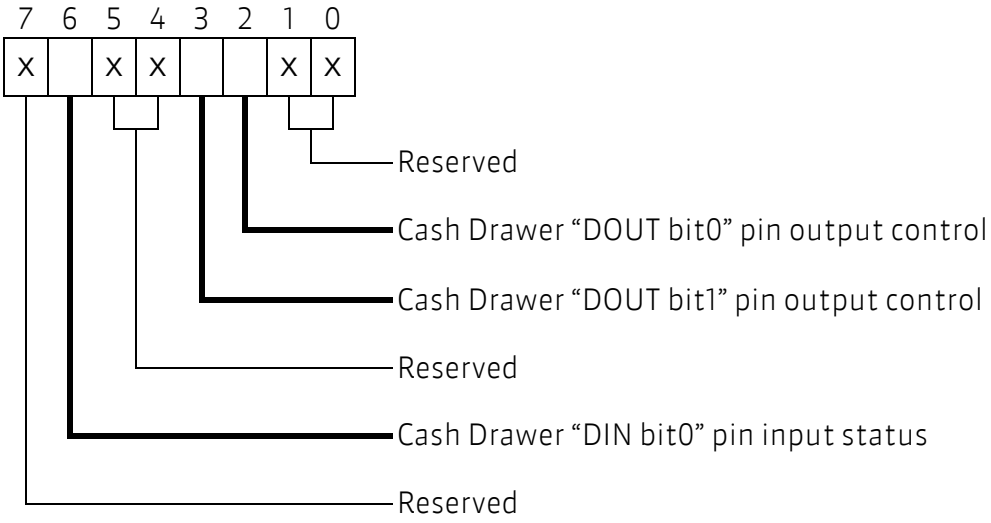
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

Cash Drawer Controller Register

The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

Register Location: 48Ch
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved	Read	Reserved		Write		Reserved	


7 6 5 4 3 2 1 0
X X X X
Reserved
Cash Drawer “DOUT bit0” pin output control
Cash Drawer “DOUT bit1” pin output control
Reserved
Cash Drawer “DIN bit0” pin input status
Reserved

Bit 7: Reserved

Bit 6: Cash Drawer “DIN bit0” pin input status.

= 1: the Cash Drawer closed or no Cash Drawer

= 0: the Cash Drawer opened

Bit 5: Reserved

Bit 4: Reserved

Bit 3: Cash Drawer “DOUT bit1” pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 2: Cash Drawer “DOUT bit0” pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 1: Reserved

Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close

- Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by “DOUT

bit0" pin control.

- Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.

Command	Cash Drawer
I 48C	Check status

- The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist.
- The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.

3-2 Serial Ports (COM 1 to COM 4)

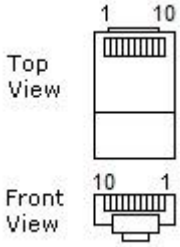
Pin Assignment for COM Ports (RJ45, RS-232)

Pin No.	Signal Name
1	NULL
2	DCD
3	DSR
4	RX
5	RTS
6	TX
7	CTS
8	DTR
9	GND
10	NULL, or +5/+12 VDC

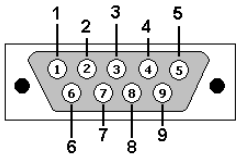
Pin Assignment for COM Cable (RS-232, RJ45 – DB9 male)

RJ45-10 Pin No.	Signal Name	DB9-M Pin No.	Signal Name
1	NULL	1	DCD
2	DCD	2	RX
3	DSR	3	TX
4	RX	4	DTR
5	RTS	5	GND
6	TX	6	DSR
7	CTS	7	RTS
8	DTR	8	CTS

9	GND	9	NULL, or +5/+12 VDC
10	NULL, or +5/+12 VDC		



DB9: male connector

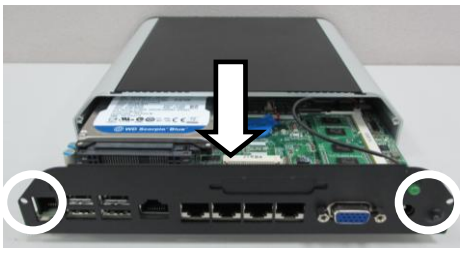


RJ45-10 connector

4 System Assembly & Disassembly

4-1 Replace the HDD

1. Put the system upside down.
   Unfasten the under cover screw (x5)

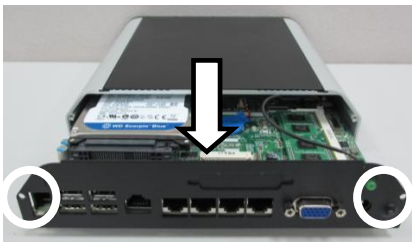


2. Unfasten the I/O cover screw (x2).
   Slide out the I/O Cover.

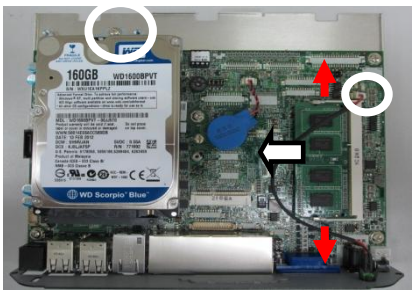
3. Unfasten the HDD screw (x3).
   Separate the HDD from the metal bracket

4-2 Replace the Motherboard

1. Put the system upside down.
   Unfasten the under cover screw (x5)



2. Unfasten the I/O cover screw (x2).
   Slide out the I/O Cover.



3. Unfasten the HDD screw (x1) and remove the DDR and LED cable.

4. Unfasten the screws (x5) on the Motherboard.

5. Unfasten the hex screws (x2) to release the I/O metal panel from the Motherboard.

5 Specification

Model	LC7100
Motherboard	
CPU	Intel CedarView D2550 processor 1.86GHz 1MB Cache
Chipset	NM10
System Memory	1 x DDR3 SO-DIMM socket up to 4G, FSB 1066MHz
Graphic Memory	Intel GMA 3650 (Gfx frequency up to 640MHz), DX9
BIOS I/O power	
BIOS	Phoenix UEFI code
Cash drawer	+12V/+24V by jumper selection
VGA	Max Resolution 1920x1200 : 60 Hz (HD videos capable)
I/O ports	
USB	4 x USB Type A (2 with special cables)
Serial/COM	RJ45 x 4 (COM1/COM2/COM3/COM4): (COM1 w/o power; COM2/COM3/COM4 powered COM with power enable /disable by BIOS setting; COM2 is 0V/5V; COM3 is 0V/5V; COM4 is 0V/12V; default BIOS setting 0V)
VGA	1 (w/ +12V power, by BIOS setting)
LAN (10 / 100/1000)	1 x RJ-45
Cash Drawer Port	1 x RJ-11 (12V or 19V)
DC Jack	1 x 2pin CN
Power Button	1
Printer	1(Parallel port printer 25 pins)option
Storage	
HDD	2.5" x 1, SATA generation 2.0
Flash memoiry	SSD Solid State Disk (option)
Power	
Power Adapter	DC 18.5V / 65W
Certificate	
EMC & Safety	FCC Class A, CE, LVD
Environment	
Operating Temperature	0°C ~ 35°C (32°F ~ +95°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	20% - 85% RH non-condensing
Storage Humidity	20% - 85% RH non-condensing
Dimension (W x D x H)	195 x 165 x 45mm

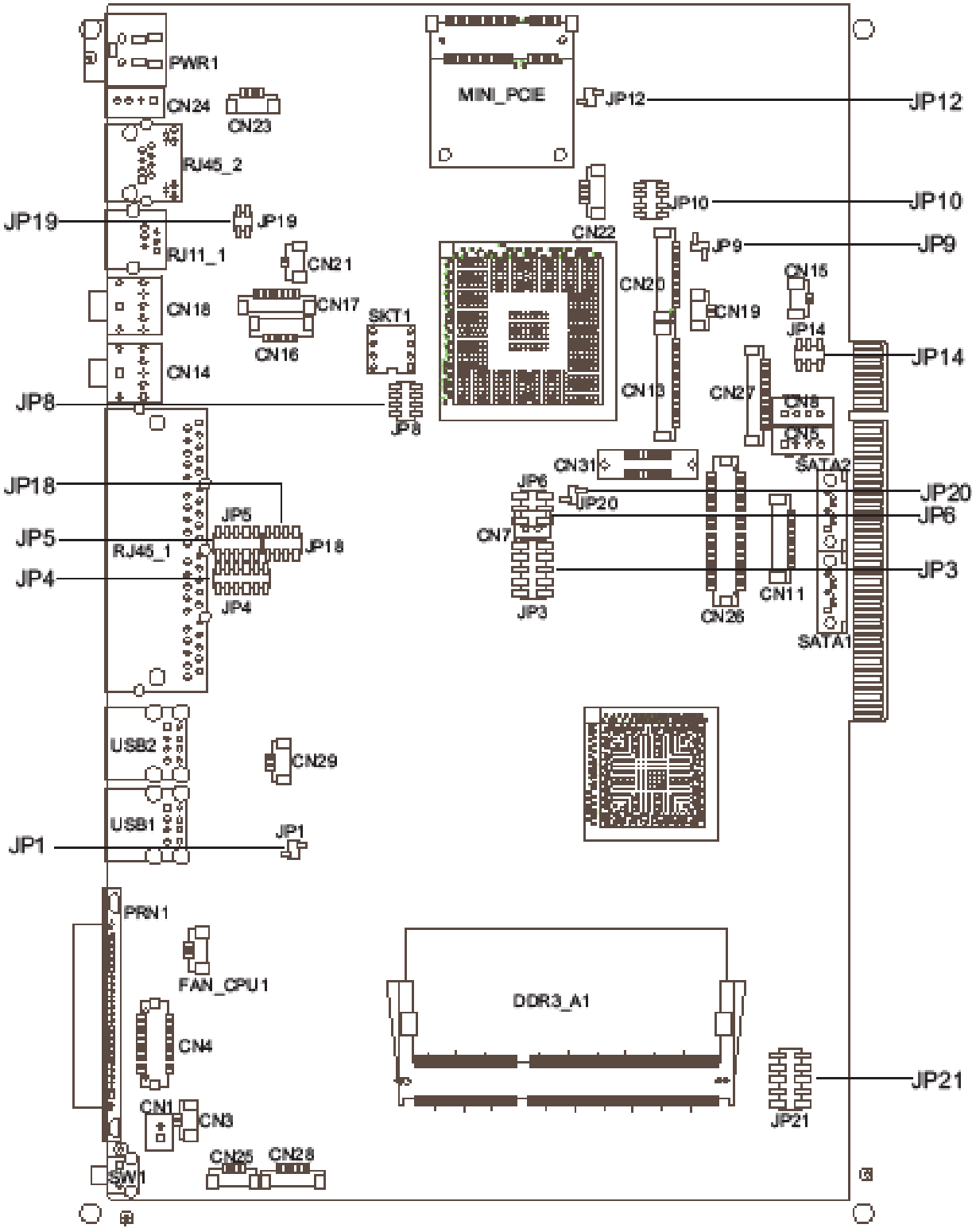
Operating System	
OS Support	Windows XP, POS Ready 2009, XP Embedded, XP professional for Embedded, Embedded, Linux, Windows 7 (32bit), POSReady 7

*Product specification is subject to change without prior notice

6 Jumper Settings

6-1 Motherboard

6-1-1 Motherboard Layout

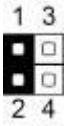


6-1-2 Connectors & Functions

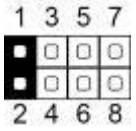
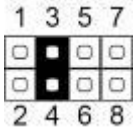
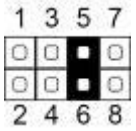
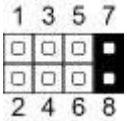
Connector	Function
CN1	Power Button Connector
CN3	Printer Port Reset
CN4	Printer Port
CN5/8	HDD Power
CN11	COM5 For Touch
CN13	Card Reader Connector
CN14	Line out
CN15	HDD LED
CN16	Speaker & MIC
CN18	MIC IN
CN20/JP10	System Indicator
CN22	USB Port
CN23	PS2 KEYBOARD
CN26	LVDS
CN27	Inverter Connector
CN29	System Fan
DDR3_A1	DDR3 SO-DIMM1
DDR3_A2	DDR3 SO-DIMM2
PRN1	Parallel Port
PWR1	+19V DC Jack
RJ11_1	Cash Drawer Connector
RJ45_1	COM1, COM2, COM3, COM4
RJ45_2	LAN
SATA1	SATA Connector
SATA2	SATA Connector
USB1	USB1, USB2
USB2	USB3, USB4
SW1	Power Button
JP1	CMOS Operation Mode
JP3/6	VGA Port
JP4/5	COM2 RS232/485/422 Setting
JP8	LCD ID Setting
JP9	Power Mode Setting
JP12	System Reset
JP14	Inverter Selection
JP18	COM3/4 Power Setting
JP19	Cash Drawer Power Setting

6-1-3 Jumper Settings

CD Power Setting

Function	JP3 (1-2) (3-4)
19V	
▲12V	

COM Power Setting

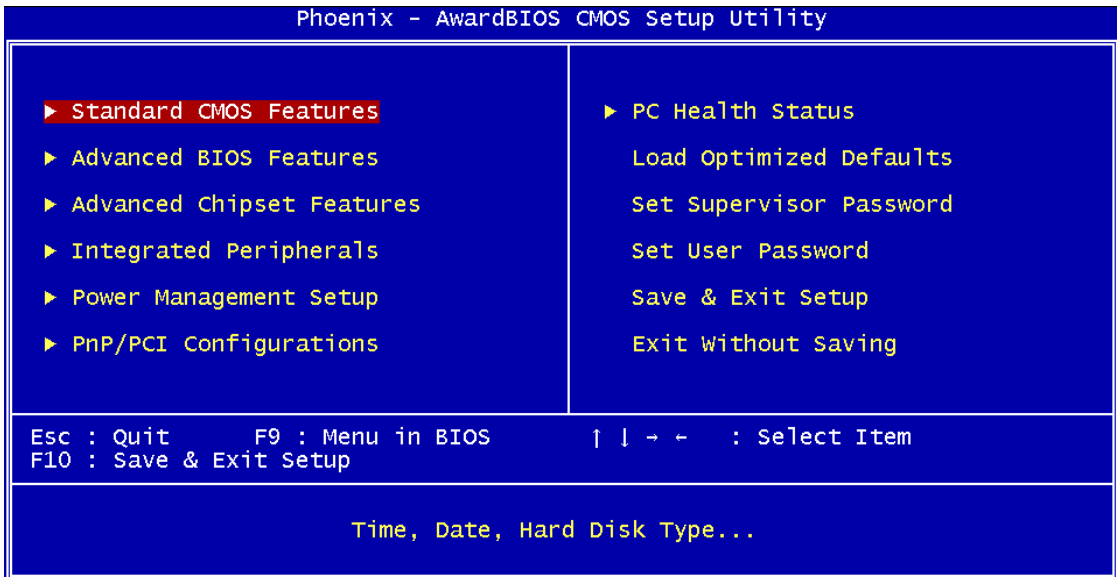
Function	JP9 (1-2) (3-4) (5-6) (7-8)
▲COM3 5V	
COM3 12V	
COM4 5V	
▲COM4 12V	

7 BIOS Settings

BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

Note: The BIOS setup menus shown in this section are for reference only and may not exactly match the items of your BIOS version.



Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on the system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize the system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management setup

Use this menu to specify your settings for power management.

PnP/PCI Configurations

This entry appears if your system supports Plug and Play and PCI Configuration.

PC health status
Displays CPU, System Temperature, Fan Speed, and System Voltages Value.
Load Optimized Defaults
Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.

Set Supervisor Password
Enables you to change, set, or disable the supervisor or user password.

Set Password
Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

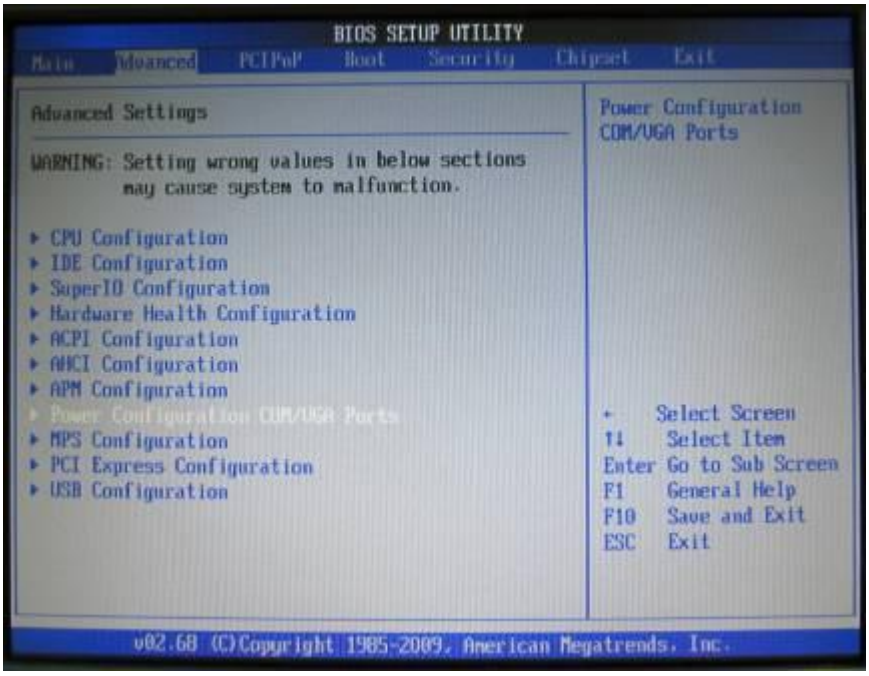
Save & exit setup
Save CMOS value changes to CMOS and exits setup.

Exit without saving
Ignores all CMOS value changes and exits setup.

7-1 VGA with 12V Setting

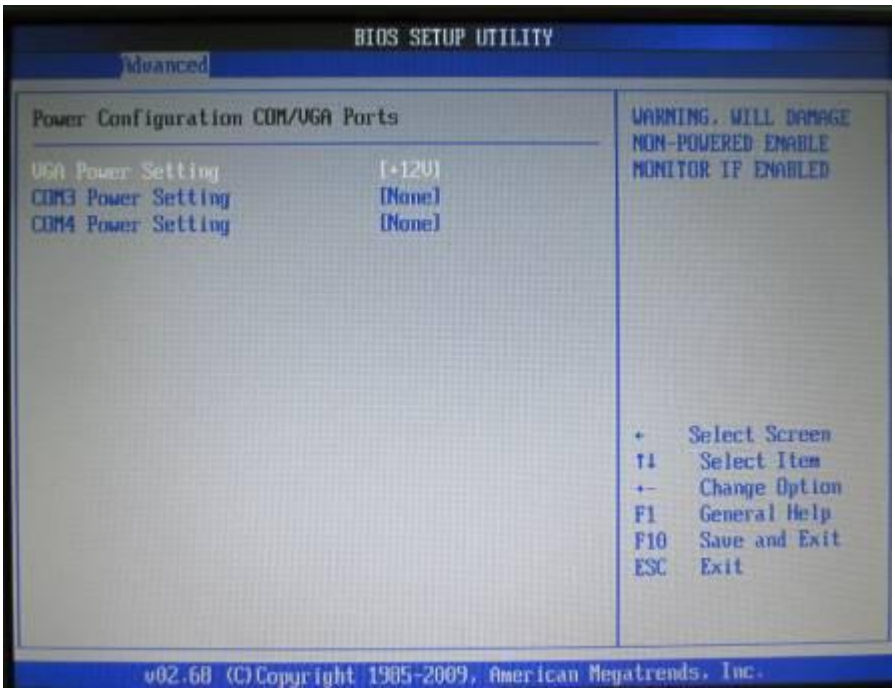
1、 Turn on power than click “Del” for BIOS SETUP

2、Select Power Configuration COM/VGA Ports

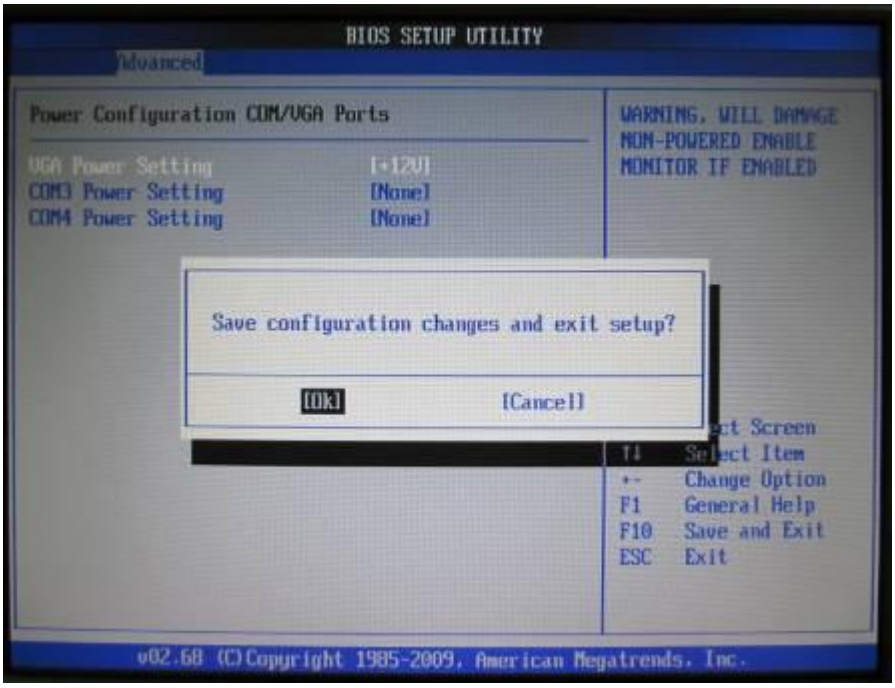


3、 Select VGA Power Setting

4、Change No Power to +12V



5、Press F10 to save



Appendix

Drivers Installation:

The shipping package includes a Driver CD. You can find every individual driver and utility that enables you to install the drivers in the Driver CD.

Please insert the Driver CD into the drive and double click on the “index.htm” to pick up the models. You can refer to the drivers installation guide for each driver in the “Driver/Manual List”.